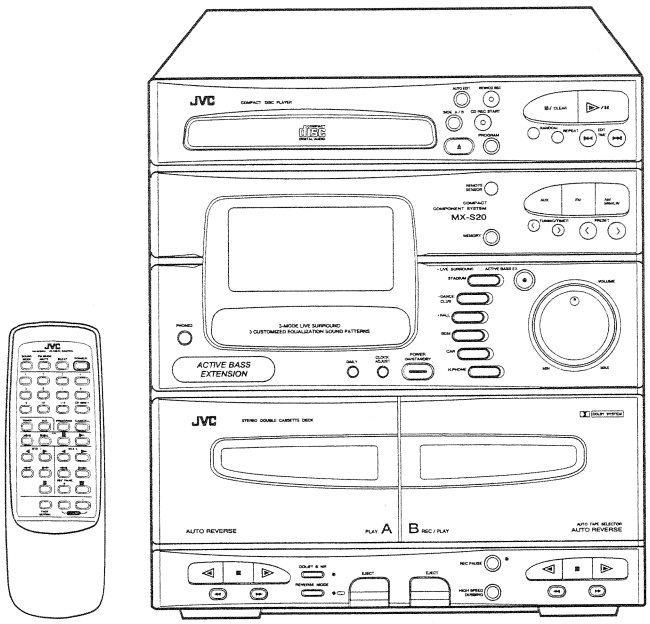
JVC

INSTRUCTIONS

CA-S20BK/CA-S20XBK

COMPACT COMPONENT SYSTEM

BEDIENUNGSANLEITUNG: KOMPAKT-KOMPONENTENANLAGE
MANUEL D'INSTRUCTIONS: MINI CHAINE COMPACTE
GEBRUIKSAANWIJZING: KOMPONENTEN-SYSTEEM
INSTRUCCIONES: SISTEMA DE COMPONENTES COMPACTOS
ISTRUZIONI PER L'USO: SISTEMA A COMPONENTI COMPATTO



These instructions are applicable for both models of CA-S20BK and CA-S20XBK. There is no difference in functions and operation between the two models. In the text, only CA-S20BK is referred, however, it can be used for CA-S20XBK in exactly the same manner.

Diese Anweisungen sind auf die beiden Modelle CA-S20BK und CA-S20XBK anwendbar. Zwischen den beiden Modellen besteht keinerlei Unterschied bezüglich Funktionen und Betrieb. Der Text bezieht sich zwar nur auf CA-S20BK, kann jedoch in derselben Weise für CA-S20XBK verwendet werden.

Ces instructions s'appliquent aux deux modèles CA-S20BK et CA-S20XBK. Il n'y a pas de différence dans les fonctions et l'utilisation entre les deux modèles. Même si, dans le texte, on ne fait référence qu'au CA-S20BK, le CA-S20XBK peut être utilisé exactement de la même manière.

Deze gebruiksaanwijzing is van toepassing op zowel model CA-S20BK als model CA-S20XBK. Er is geen verschil tussen de functies en bediening van de twee modellen. In de tekst wordt alleen de CA-S20BK genoemd hij kan echter op dezelfde manier gebruikt worden voor de CA-S20XBK.

Estas instrucciones son aplicables a los dos modelos de CA-S20BK y CA-20XBK. No existen diferencias de función u operación entre los dos modelos. El texto sólo se refiere al CA-S20BK, pero puede ser usado exactamente de la misma forma para el CA-S20XBK.

Queste istruzioni sono applicabili per entrambi i modelli CA-S20BK e CA-S20XBK. Non vi é alcuna differenza nelle funzioni ed operazioni tra i due modelli. Nel testo, ci si riferisce solamente al modello CA-S20BK, tuttavia esso puó essere usato per il CA-S20XBK esattamente nella stessa maniera.

COMPACT disc DIGITAL AUDIO

E3058)-2078C
[C, E, G, GI]

Warnings, Cautions and Others/Warnung, Achtung und sonstige Hinweise/ Mises en garde, précautions et indications diverses/Waarschwingen, nota's en andere mededelingen/Avisos, precauciones y otras notas/Avvertenze e precuzinoni da osservare

IMPORTANT for the U.K.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted.

If nontheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not supplied fitted with a mains plug then follow the instructions given below:

IMPORTANT.

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

Blue : Neutral
Brown : Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT - CONSULT A COMPETENT ELECTRICIAN.

For Canada/pour le Canada

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PULG TO WIDE SLOT, FULLY INSERT
ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQUAU FOND

THIS UNIT IS PRODUCED TO COMPLY WITH DIRECTIVE 76/889/ EEC.

DIESES GERÄT ENTSPRICHT EG-RICHTLINIE 87/308 EWG.

CET APPAREIL A ETE FABRIQUE POUR ETRE CONFORME A LA DIRECTIVE CEE NUMERO 87/308/CEE.

DIT APPARAAT VOLDOET AAN DE EISEN GESTELD IN DE EEG BEPALING 87/308.

ESTA UNIDAD SE PRODUCE PARA CUMPLIR CON LA DIRECTIVA 87/308/CEE.

CONFORME AL D.M. 13 APRILE 1989 DIRETTIVA CEE/87/308.

CAUTION
To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

ACHTUNG
Zur Verhinderung von elektrischen Schlägen, Brandgefahr, usw:
1. Keine Schrauben lösen oder Abdeckungen entfernen und nicht das Gehäuse öffnen.
2. Dieses Gerät weder Regen noch Feuchtigkeit aussetzen.

ATTENTION
Afin d'éviter tout risque d'électrocution, d'incendie, etc.:
1. Ne pas enlever les vis ni les panneaux et ne pas ouvrir le coffret de l'appareil.
2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

VOORZICHTIG
Ter vermindering van gevaar voor brand, elektrische schokken, enz.:
1. Verwijder geen schroeven, panelen of de behuizing.
2. Stel dit toestel niet bloot aan regen of vocht.

PRECAUCIÓN
Para reducir riesgos de choques eléctricos, incendio, etc.:
1. No extraiga los tornillos, los cubiertas ni la caja.
2. No exponga este aparato a la lluvia o a la humedad.

ATTENZIONE
Per ridurre il rischio di scosse elettriche, incendi, ecc.
1. Non togliere le viti, il coperchi o aprire il rivestimento.
2. Non esporre l'apparecchio alla pioggia o all'umidità.

IMPORTANT FOR LASER PRODUCTS / WICHTIGER HINWEIS FÜR LASER-PRODUKTE
IMPORTANT POUR LES PRODUITS LASER / BELANGRIJKE INFORMATIE VOOR LASERPRODUKTEN
IMPORTANTE PARA PRODUCTOS LÁSER / IMPORTANTE PER I PRODOTTI LASER

REPRODUCTION OF LABELS / ANBRINGUNGSORTE FÜR LASER-PRODUKTE / REPRODUCTION DES ETIQUETTES
VERKLARING VAN DE LABELS / REPRODUCCIÓN DE ETIQUETAS / RIPRODUZIONE DELLE ETICHETTE

① CLASSIFICATION LABEL, PLACED ON REAR ENCLOSURE

① KLASSIFIKATIONSETIKETT, AN DER RÜCKSEITE

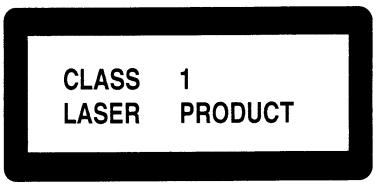
① ETIQUETTE DE CLASSIFICATION, PLACEE A L'ARRIERE DU COFFRET

① KLASSIFIKATIELABEL, OP DE ACHTERZIJDE VAN HET APPARAAT

① ETIQUETA DE CLASIFICACIÓN, PEGADA EN LA PARTE POSTERIOR DE LA CAJA

① ETICHETTA DI CLASSIFICAZIONE, SITUATA SUL RIVESTIMENTO POSTERIORE.

(Except for Canada)
(KANADA ausgenommen)
(Excepte Sauf le CANADA)
(niet bij de Canadese modellen bijgeleverd)
(Excepto por CANADA)
(Ecceto il CANADA)



② WARNING LABEL, PLACED INSIDE THE UNIT

② WARNETIKETTE, IM GERÄTEINNEREN

② ETIQUETTE D'AVERTISSEMENT PLACEE A L'INTERIEUR DE L'APPAREIL

② WAARSCHUWINGSLABEL, IN HET APPARAAT

② ETIQUETA DE ADVERTENCIA, PEGADA EN EL INTERIOR DE LA UNIDAD

② ETICHETTA DI AVVERTENZA, SITUATA ALL'INTERNO DELL'APPARECCHIO

DANGER: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)
VARNING: Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)
ADVARSEL: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling (d)
VARO: Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)

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1. CLASS 1 LASER PRODUCT
2. **DANGER**: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION**: Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.

1. LASER-PRODUKT DER KLASSE 1
2. **GEFAHR:** Unsichtbare Laserstrahlung bei Öffnung und fehlerhafter oder beschädigter Speree. Direkten Kontakt mit dem Strahl vermeiden!
3. **ACHTUNG:** Das Gehäuse nicht öffnen. Das Gerät enthält keinerlei Teile, die vom Benutzer gewartet werden können. Überlassen Sie Wartungsarbeiten bitte qualifizierten Kundendienst-Fachleuten.

1. PRODUIT LASER CLASSE 1
2. **ATTENTION:** Radiation laser invisible quand l'appareil est ouvert ou que le verrouillage est en panne ou désactivé. Eviter une exposition directe au rayon.
3. **ATTENTION:** Ne pas ouvrir le couvercle du dessus. Il n'y a aucune pièce réparable par l'utilisateur à l'intérieur. Laisser à un personnel qualifié le soin de réparer votre appareil.

1. KLASSE 1 LASERPRODUKT
2. **GEVAARLIJK**: Onzichtbare laserstraling wanneer open en de beveiliging faalt of uitgeschakeld is. Voorkom het direkt blootstaan aan de straal.
3. **VOORZICHTIG**: De bovenkap niet openen. Binnenin het toestel bevinden zich geen door de gebruiker te repareren onderdelen: laat onderhoud over aan bevoegd vakpersoneel.

1. PRODUCTO LÁSER CLASE 1
2. **PELIGRO**: En el interior hay radiación láser invisible. Evite el contacto directo con el haz.
3. **PRECAUCIÓN**: No abra la tapa superior. En el interior de la unidad no existen piezas reparables por el usuario; deje todo servicio técnico en manos de personal calificado.

1. PRODOTTO LASER CLASSE 1
2. **PERICOLO:** Radiazione laser invisibile quando l'apparecchio è aperto o quando il dispositivo di sicurezza è guasto o disattivato. Evitare l'esposizione diretta ai raggi.
3. **ATTENZIONE:** Non aprire il coperchio della parte superiore che non contiene alcun pezzo riparabile dall'utente. Rivolgersi a personale qualificato per la manutenzione.

Use this instruction book keeping this page open.

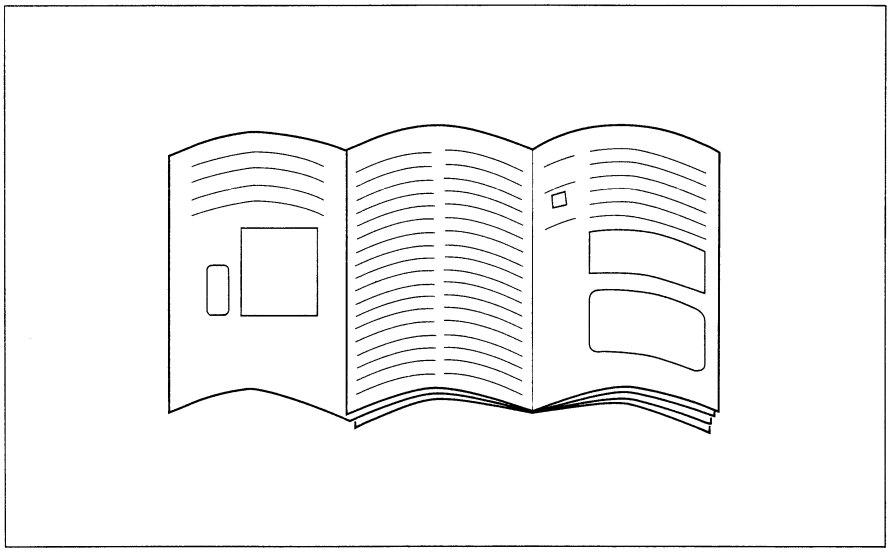
Die vorliegende Anleitung auf dieser Seite aufschlagen und offen bereitlegen.

Utiliser ce manuel d'instructions en maintenant cette page ouverte.

Klap deze bladzijde open bij het doorlezen van de gebruiksaanwijzing.

Utilice este manual de instrucciones, manteniendo esta pagina abierta.

Leggere il presente manuale di istruzioni tenendo questa pagina aperta.



Features

Here are some of the things that make your CA-S20BK powerful and easy to use.

Great sound

❑ To get such **great sound** from such a compact package the CA-S20BK has:

- Pre-programmed live surround effects like **STADIUM, DANCE CLUB, HALL** as well as SEA effects like **BGM, CAR, H. PHONE** so you don't have to be a sound engineer to get great effects.

Easy operation

COMPU PLAY

❑ The controls and operations have been redesigned to make them very easy to use so you can spend your time listening to music.

- With the One Touch Operation feature of JVC's new **COMPUPLAY** you can turn on the CA-S20BK and start the radio, the tape deck, or the CD player with a single touch.
- Two timers, **DAILY Timer** and **SLEEP Timer** are extremely easy to set so you can really use them.
- The **Display** is large and clear. It's organized so you can tell at a glance what's happening because functions light up as you use them, and blink to tell you they are ready. It gives you some important messages like "NO DISC" and some others.
- **Auto Edit** figures out how to arrange CD tracks on a tape. When you are recording a tape from a CD, the selections aren't cut off if the tape ends before the selection does.

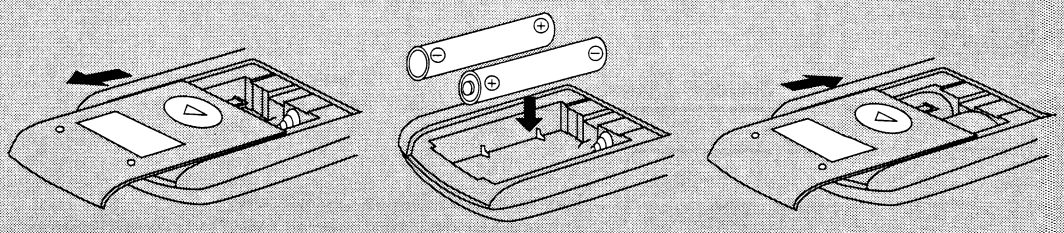
IMPORTANT CAUTIONS

1. **Installation of the Unit**
   - Select a place which is level, dry and neither too hot nor too cold (between 5°C and 35°C).
   - Leave sufficient distance between the Unit and your TV.
   - Do not use the Unit in a place subject to vibrations.
2. **Power cord**
   - Do not handle the power cord with wet hands!
   - When unplugging from the wall outlet, always pull the plug, not the power cord.
3. **Malfunctions, etc.**
   - There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
   - Do not insert any metallic object into the Unit.

How to Put Batteries in the Remote Control

Match the polarity (+ and –) on the batteries with the + and – markings on the battery compartment.

R6P(SUM-3)/AA(15D, 15F)



CAUTIONS: Observe Proper Handling of Batteries.
To avoid battery leakage or explosion:

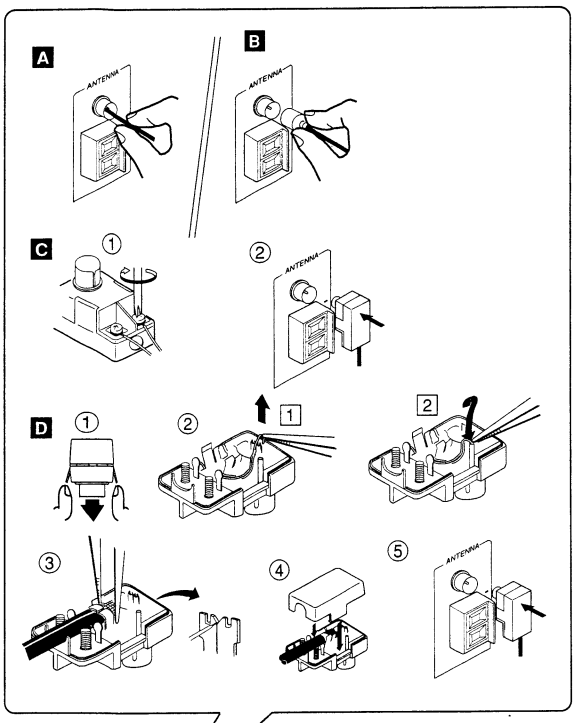
- Remove batteries when the Remote will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Don't use an old battery together with a new one.
- Don't use different types of batteries together.

English

Connection Diagrams and Instructions

Connecting the FM and AM(MW/LW) Antennas

FM Antenna Connections



For Germany

A Using the Supplied Wire Antenna

The FM wire antenna provided can be connected to a FM 75-ohm COAXIAL as a temporary measure.

Connect the Antenna Adaptor to the FM 75-ohm COAXIAL terminal.

B Using the Coaxial Type Connector (Not Supplied)

A 75-ohm antenna with coaxial type connector (DIN 45332) should be connected to the FM 75-ohm COAXIAL terminal.

For Continental Europe and Canada

C Using the Supplied Feeder Antenna

① Attach the feeder antenna to the FM connector as shown in the figure.

② Connect the FM connector to the FM 75-ohm COAXIAL terminal.

D Using FM 75-ohm Antenna Cable (Not Supplied)

① Open the claws at both sides and remove the cover.

② Move the conductor wire from [1] to [2] using tweezers or similar tool (only when using coaxial cable).

③ Fix the coaxial cable and its core.

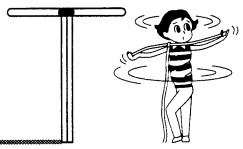
④ Put on the cover.

⑤ Connect the FM connector on the FM 75-ohm COAXIAL terminal.

Note:

Make sure the antenna conductor do not touch any other terminals, connecting cords and power cord on the system.

This could cause poor reception.

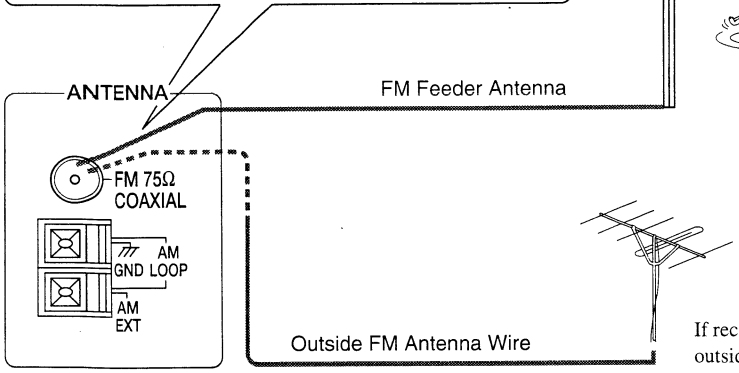


For Germany

Extend the supplied wire antenna horizontally.

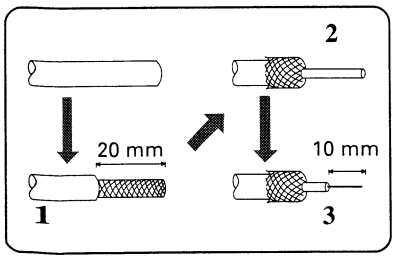
For Continental Europe and Canada

Unfold the loops of the supplied dipole FM feeder antenna and extend them as shown. Fasten them up in the position which gives you the best FM reception.



Before attaching a 75 ohm coaxial lead (the kind of round wire going to an outside antenna), disconnect the supplied dipole indoor antenna.

If reception is poor, connect the outside antenna.



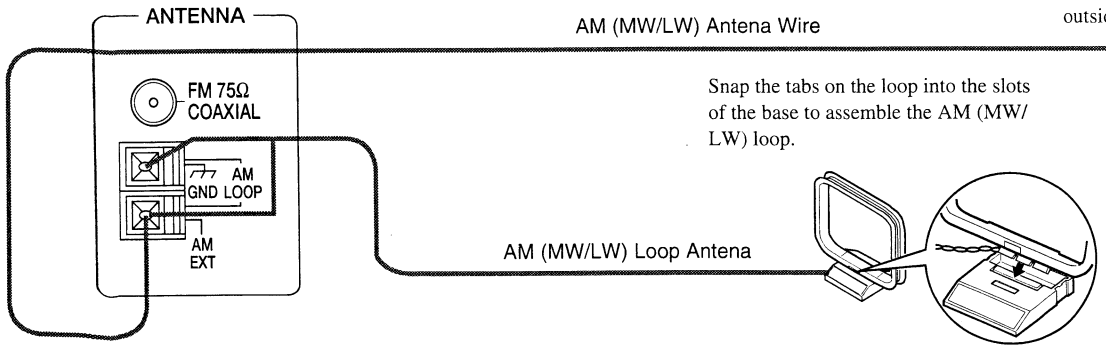
How to Strip the 75-ohm Coaxial Cable

1. Strip back the outside covering of the 75 ohm coaxial cable to expose the braided metallic mesh.
2. Pull the mesh back and twist into a single connector as shown.
3. Strip the insulation about 10 mm back from the central wire.
4. Attach to the supplied Antenna Adaptor, as shown in the diagram above.

AM (MW/LW) Antenna Connections

LW: For Continental Europe and except for Canada

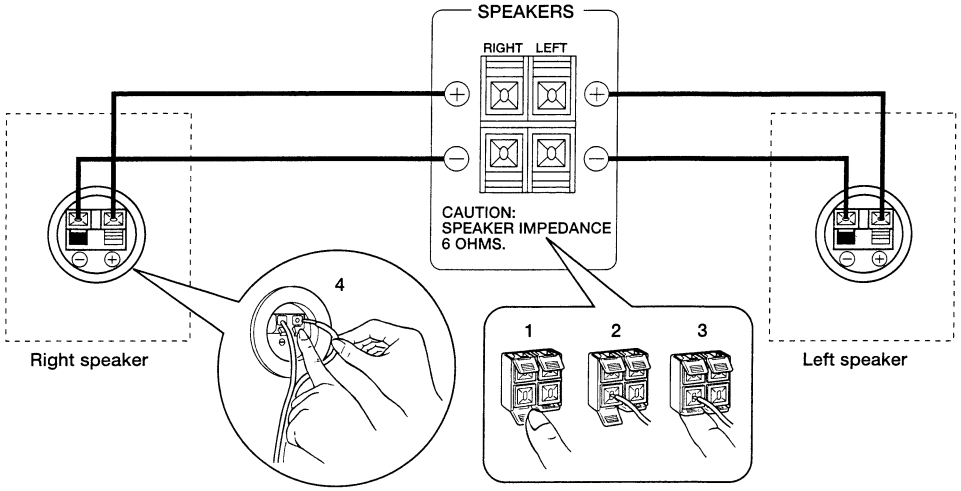
If reception is poor, connect the outside antenna.



Snap the tabs on the loop into the slots of the base to assemble the AM (MW/LW) loop.

Note: Even when connecting an outside AM (MW/LW) antenna, keep the indoor AM (MW/LW) loop connected.

Connecting the Speakers



For each speaker connect one end of the speaker wire to the speaker terminals on the back of the CA-S20BK and one end to the speaker. On the back panel:

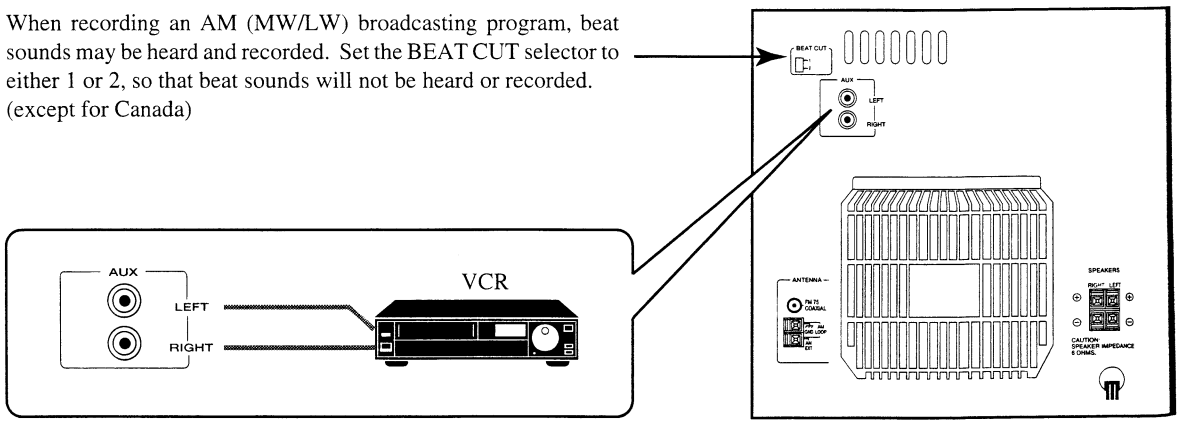
1. Open each terminal.
2. Insert the end of the speaker wire as shown (be sure to remove the insulation at the end of each wire first).
3. Close the terminals to clamp the speaker wires firmly in place.
4. Connect the red (+) and black (–) terminals of the right side speaker to the red (+) and black (–) terminals marked RIGHT on the CA-S20BK.
   Connect the red (+) and black (–) terminals of the left side speaker to the red (+) and black (–) terminals marked LEFT on the CA-S20BK.

IMPORTANT: Match the polarity of the speaker terminals with the polarity of the terminals on the CA-S20BK, red (+) to red (+) and black (–) to black (–). Check your speakers for correct impedance: 6 ohms only.

Connecting Auxiliary Equipment

VCR

When recording an AM (MW/LW) broadcasting program, beat sounds may be heard and recorded. Set the BEAT CUT selector to either 1 or 2, so that beat sounds will not be heard or recorded. (except for Canada)



Read Me First

How to get the most for your money by using this manual.

The Engineers at JVC have made the CA-S20BK very easy to use, and if you are experienced using audio equipment, you can figure out how to use some of the CA-S20BK controls by yourself. However, we have built some new features into this model, which you can learn about easily from the manual.

If you are a new user or just want a review, this manual explains how to use the CA-S20BK and take advantage of its features for playing and recording music, as well as other sounds. One way to use this manual is to read it through now and refer back to it when you need to refresh your skills for some special operation. Of course you can just look up the topics, such as recording a CD, that you want to do, but remember that you may need to refer to other parts of the manual for some of the instruction: for instance, in explaining how to record a CD, we assume you already know how to load a CD. That's why we recommend that you read the manual through once before starting. We've made it short, and easy to follow.

However before you proceed, please read the Cautions on page 2 and the set-up directions.

How This Manual Is Organized

IMPORTANT!
Special features for a special Manual.

We have incorporated some special features in this manual:

- A fold-out page to look at while you read the instructions shows the front controls of the CA-S20BK. Some procedures have the illustrations of which control to use right with them, and for some you will need to look at the fold-out for the illustration.
- Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditioning, which are mentioned in the Common Operations section.
- Names of buttons, controls and function names that light up on the display panel are written in all Capital letters like this: POWER.
- When we are talking about the Function, rather than the BUTTON or DISPLAY, then we just capitalize the first letter of the words.
- The ☞ alerts you to important information or how to solve special problems that may occur when using the CA-S20BK.

The column on the left of the page is a special place to make it easier to find just what you want to know about, with little headlines announcing what each part of the page is about. Sometimes illustrations and helpful hints are placed here also.

Basically we use three kinds of information to help you understand and use the CA-S20BK:

- ❑ Information about what you can do (such as record a CD or preset a radio station) and how the Unit is designed to make doing this activity easy.
- ❑ Procedures, usually numbered in the order you do the steps, to guide you in exactly what to do to accomplish something, such as tune a radio station or record a tape.
- ❑ Information you need to know to make decisions about which functions of the CA-S20BK to use for particular tasks (such as when to use Dolby NR to improve tape sound) and special hints to make your work go smoothly, like reminding you to set the sound effects before starting the CD to tape recording, since they cannot be changed once recording begins without starting completely over.

The manual has a table of contents to help you easily look up what you want to know too.

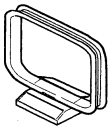
We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your CA-S20BK.

Getting Started Right

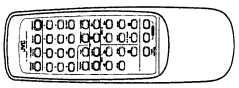
Unpacking

Inside the packing box....

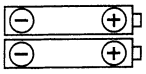
Of course you have already opened your CA-S20BK carton, since you are reading this manual. Although the Unit is quite sturdy, you may want to save the packing to re-pack your CA-S20BK in case you are moving it some distance. Check to be sure you have all of the following things, which are supplied with the CA-S20BK:



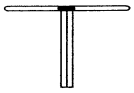
AM (MW/LW) Antenna



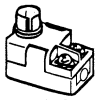
Remote Control



Batteries



FM Feeder Antenna (except for Germany)



Antenna Adaptor (except for Germany)

FM Wire Antenna (only for Germany)

If any are missing, contact your dealer immediately.

Location

Where can you put it?

You can place the CA-S20BK in many different kinds of locations to suit your needs; just observe the cautions on page 2: keep away from moisture and heat; leave some space between the Unit and its surroundings, more than 1 cm at the sides of the console and 10 cm at the back.

Set Up

Very little assembly required

You will need to do the following four things to get your CA-S20BK ready to use.

1. Connect the Antenna(s).
2. Connect the Speakers.
3. Put Batteries (included) in the Remote.
4. Connect other sound sources (VCR) if used.

1. Connect the Antenna(s)

Please look at the diagrams on pages 3 and 4 to do these things.

Follow the diagrams on page 3. Here's what you need to know:

- ❑ For AM (MW/LW) (LW: except for Canada) reception you must connect the supplied loop antenna. If reception is poor, connect the outside antenna, but leave the loop antenna in place—the AM (MW/LW) (LW: except for Canada) will not work correctly without it.
- ❑ For FM reception, connect the supplied wire as shown. However, if you use an outdoor antenna, disconnect the indoor FM antenna first.
- ❑ To avoid noise, keep antennas away from metalic parts of the CA-S20BK, connecting cords and the AC power cord.

2. Connect the Speakers

Basically, you look at the diagrams on page 4 and follow the pictured instructions.

3. Put Batteries in the Remote

Pay close attention to getting the batteries in correctly—we've made it very easy, just match the + and – marks on the batteries with the + and – markings on the Remote. See page 2 for instructions.

> **CAUTION**: Handle batteries with care. See page 2 for proper use of batteries.

4. Connect Other Sound Sources, such as VCR

You can play the sound portion of a TV program or video tape through your CA-S20BK's sound system, often improving it greatly. A VCR can also be hooked up to play through the CA-S20BK. Just follow the diagram on page 4.

> **CAUTION:** DO NOT connect optional equipment while the power is ON.

Now you can plug the AC power cord into the wall socket, and your CA-S20BK is at your command!

> **CAUTION:** First make all connections before pluging the Unit into any AC power outlet.

Read on and find out how to use the many features built into your Unit.....

English

Common Operations

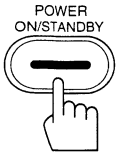
Here are the things that apply to all the functions of your CA-S20BK. If something in a procedure is unclear to you, check back here.

COMPUPLAY

The Magic of COMPUPLAY

COMPUPLAY is JVC's new feature that lets you control the most used functions of the CA-S20BK with a single touch. This One Touch Operation starts playing a CD, turns on the radio, plays a tape, etc. with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have called for. If the Unit is not ready, such as no CD or tape in place, the Unit still comes on and then gives you a message on the display so you can put in a CD or tape.
How One Touch Operation works in each case is explained in the respective section about that function.

Turning the CA-S20BK On



Press POWER; the STANDBY indicator on POWER goes out.

- ❑ The CA-S20BK comes on ready to do whatever it was doing when the power was last shut off. So if the last thing you were doing was listening to a tape in deck B, you now are ready to listen to a tape again in deck B, or you can change to another source.
- ❑ If you were listening to the radio last, the radio comes on playing that last station.

Turning the CA-S20BK Off

Press POWER again; the stand-by indicator lights up and the display blanks, except for the clock display.

- ❑ A small amount of power (13 watts) is always consumed even though the power is turned off (called standby mode).
- ❑ To switch the power off completely, unplug the power cord.

Controlling the Sound

Making it sound the way *You* want it to:

The same set of buttons and knobs control the sound, no matter which function is producing it. Here we will briefly explain how these controls work, and how you can use them to increase your enjoyment of the music.

•Volume

Volume Control

Rotate clockwise to increase loudness, counter-clockwise to reduce loudness. Be sure to read the caution at the end of this section about high sound levels damaging your hearing or your equipment.

Sound Modes

The CA-S20BK has some preset sound effects that let you control of way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is try them yourself.
You can use only one effect at a time selecting from the LIVE SURROUND and SEA effects. Feel free to experiment!
To get an effect, press a preset button so that the "Effect" is shown on the display.
To cancel the effect, press the button again, or press another preset button to select another effect.

•STADIUM
•DANCE CLUB
•HALL

LIVE SURROUND effects
With these effects, the sound coming from only two speakers approaches the quality of sound from four speakers.
•STADIUM — Adds clarity and spreads the sound, like in an outdoor stadium.
•DANCE CLUB — Increase resonance and bass.
•HALL — Adds depth and brilliance to the sound, like in a concert hall.

BGM
CAR
H. PHONE

Preset SEA (Sound Effect Amplifier) effects
Adjustments of frequency range levels have been preset as three SEA effects.
BGM — Used as a background music.
CAR — Used for recording tapes to listen to in a car.
H. PHONE — Used for recording tapes to listen to with headphones.

☞ On the Remote, you can't find buttons for these preset sound effects. By pressing SOUND MODE on the Remote, you can cycle through the effects one after the other.

Things to remember about using preset effects:

- ❑ Set a preset effect before you start recording with REW/CD REC or CD REC START, because once recording starts, the preset effect cannot be changed without stopping recording, and often having to start over. If you need different effects for each selection, use the standard recording features described on page 13, rather than REW/CD REC or CD REC START.
- ❑ Each of the preset effects changes the sound in a different way by changing which parts of the sound are increased or reduced.

Active BASS Effect

The richness and fullness of the sound is maintained regardless of how high or low you set the VOLUME control.
To get the effect, press ACTIVE BASS EX so that the indicator on the button lights up.
To cancel the effect, press the button again so that the indicator goes off.

Listening with Headphones

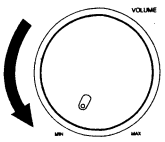
A pair of headphones can be connected to the PHONES jack on the front panel. **Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.**

The Display and the Indicators—Two Very Useful Hints

The Display and The Indicators

- ❑ The display tells you many useful things about what your Unit is doing. Watch it as you give instructions by pressing buttons. It also gives you some messages like "NO DISC", and some others to show you what to do next.
- ❑ Some of the controls have a small light, called an indicator, right next to or even right on the button or knob itself. The light comes on when the function is on, and goes off when it is not in use.

Caution: Too LOUD!



CAUTION: Always set the VOLUME control to MIN before turning on a connected source such as a VCR or starting any other of the sound sources such as the radio, tape, or CD player. Otherwise, if the VOLUME control is turned up, the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

Listening to the Radio

You can listen to both AM (MW/LW) (LW: except for Canada) and FM.

- ❑ Before listening to the radio, check that both the AM (MW/LW) (LW: except for Canada) and FM antennas are firmly connected.

One Touch Radio

COMPU PLAY
Radio

Just press AM (MW/LW) (LW: except for Canada) to turn on the Unit and start playing the most recent AM (MW/LW) (LW: except for Canada) station tuned in, or press FM to start the most recent FM station tuned in.

- ❑ You can switch from any other sound source to the radio by pressing either AM (MW/LW) (LW: except for Canada) or FM.

Tuning in a Station

Press AM or FM to turn on the radio. The display shows the station frequency tuned to.

Three ways to tune in a station

Three ways to select a station

1. Press TUNING/TIMER < or > repeatedly to move from frequency to frequency until you find the one you want.

OR

2. Hold down TUNING/TIMER < or >, the frequency starts changing on the display. When a station is tuned in, "TUNED" lights up on the display and the frequency stops changing.

OR

3. Press once and release PRESET < or > to go to the next preset station, or hold PRESET < or > to cycle through the preset stations: release the button when the preset station you want shows on the display. (This method is possible only after presetting stations.)

You can also use the Remote to tune in stations and preset channels:

To tune preselected stations with the Remote:

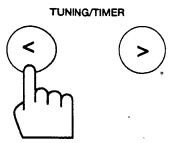
1. Press FM or AM depending on which band you want.
2. Select the station by entering the preset channel number in the 10 key pad of the Remote.

Presetting Stations

How to preset AM and FM radio stations

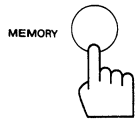
Once a station is assigned to a channel number, the station can be quickly tuned either from the Remote using the 10 key pad of the Remote or the CA-S20BK itself using PRESET < or > to call up the channel number.

- ❑ You can preset 40 AM (MW/LW) (LW: except for Canada) and FM stations at random.
- ❑ Preset stations may be erased when power is cut off to the Unit, as when it is unplugged from the AC outlet or a power failure occurs. If the preset stations are lost, simply set the stations again using the following procedure.

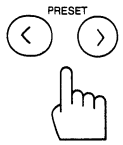


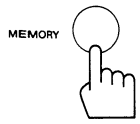
To preset radio stations

1. Tune in the station you want to set using TUNING/TIMER < or >.
2. Press MEMORY.
   On the display "MEMORY" will blink for 8 seconds.
   - ❑ During these 8 seconds while "MEMORY" is blinking you can assign a channel number to the station and enter it into the memory.



3. Select a channel number by pressing PRESET < or > until you find the channel number you want.
4. Press MEMORY and the station will be assigned to the channel number showing on the display.
   - ❑ If a station has been previously stored using the same channel number, it will be erased and the newly selected station will be stored.





Receiving in Stereo or Mono

When an FM stereo broadcast is hard to receive or noisy:

- ❑ Press FM MODE/MUTE on the remote control so that reception improves, although you loose the stereo effect. In this state, you will hear noise while tuning into stations.
- ❑ To restore stereo effect, press FM MODE/MUTE again so that "AUTO" appears on the display. In this state, when a program is broadcast in stereo, you will hear stereo sound; when in monaural, you will hear monaural sounds. Furthermore, in this state, you won't hear noise while tuning into stations.

Listening to a Compact Disc

Compact Disc Play

The quickest way to start a CD is with the One Touch Operation:

❑ Press ▷/II on the CD player or ► on the Remote.

- If a CD is already loaded, the Unit automatically turns on and starts to play it from track 1.
- If no CD is loaded, the Unit automatically turns on and the CD tray opens. This is exactly the same as what happens if you press ▲ instead of ▷/II.

Basics of Using the CD Player

Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.

How to use the CD player: from the most basic to advanced

To Play a CD

1. Press ▲.
2. Put a CD, printed side up, into the tray.
3. If you want to listen to the CD now, press ▷/II (or ► on the Remote).
   The display shows the track being played and the length of time since it started.

To stop the CD, press ■/CLEAR (or ■ on the Remote). When you start again, the CD begins with track 1.

To pause the play, press ▷/II while the CD is playing so when you press ▷/II again (or ► on the Remote) the CD starts just where you left off.

To remove a CD, press ▲, take the CD out, and press ▲ again to close the tray. Keep the tray closed except during loading and unloading to protect the mechanism from dust and damage.

How to find a track

How to Find the Track or a Particular Point You Want

Each time you press briefly and release EDIT TIME |◄◄ or ►►| (|◄◄ or ►►| on the Remote) the track changes by one.

❑ Press and release EDIT TIME ►►| (or ►►| on the Remote) to go ahead one track at a time.

❑ Press and release EDIT TIME |◄◄ (or |◄◄ on the Remote) to go back one track at a time.

❑ Holding down EDIT TIME |◄◄ or ►►| will fast forward or fast reverse the CD so you can quickly find the particular part of a track you want to listen to. Fast forward and fast reverse are only possible by using the buttons on the Unit when the CD is playing.

❑ Holding down |◄◄ or ►►| on the Remote allows you to change the tracks continuously. (By using the buttons on the Unit, it is only possible when the CD is not playing.)

Using the Remote to find a track

Locating a Track with the Remote

Using the 10 key pad on the Remote allows you to go directly to the beginning of any track.

1. Press ►.
2. Enter the number of the track you want using the 10 key pad. The selected track will start to play.
   - Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10.

With programming, you can play back tracks in any order

Programming the Playing Order of the Tracks

In addition to the high quality sound which makes the CD such a good way to listen to music, you can change the order in which the tracks play.

Random Play

The tracks will play in no special order when you use this play mode.
Before starting a CD, press RANDOM on the CD player.
When all of the tracks have been played, the CD shuts off.

❑ Press REPEAT before or during random play to instruct the CA-S20BK to continue with a different random track selection after the last selection is played.

To cancel random play, press ■/CLEAR (or ■ on the Remote).

Program with the Remote

Programmed Play

You can arrange the tracks to play in any order you like with the Program function. The Remote is very useful for this because you can select tracks by number with the 10 key pad. See "How to Use the Remote Control," page 18, if you need more information about its use. You can also use the main Unit.

How to program: just 3 easy steps

To program the order of CD tracks using the Remote

1. Press PROGRAM.
2. Press CD 10 key.
3. Press the number of the first track you want to hear, then the number of the second track, and so on until you have entered all the track numbers you want to play.
   - ❑ Refer to the section "How to use the Remote Control" on page 18 if you have questions about how to enter numbers above 10.
   - ❑ Your program can include up to 32 tracks, and you can repeat tracks if you wish.
4. Press ► to start the program—the first track you programmed will start to play, followed by the next one you entered, until all the selected tracks are played.

To program the CD from the Unit

1. Press PROGRAM.
2. Press EDIT TIME ⏮ or ⏭ to locate the track you want to start with.
3. Press PROGRAM to store the selected track.
4. Repeat steps 2 and 3 until you have entered all the tracks you want to program.
5. Press ▷/II and the Unit will begin playing the tracks in the order you programmed them.

To stop the CD during programmed play, press ■ on the Remote or ■/CLEAR on the Unit.

To cancel the program, press PROGRAM on the Remote or ■/CLEAR on the Unit while the CD is not playing.

Programming Hints

A few hints to make programming easier

- ❑ To add a track to your program, enter the track numbers with the 10 key pad. Any tracks you add will appear at the end of the current program.
- ❑ If you want to change the number of a track you just entered, press CANCEL on the Remote, and enter another number. (When the display shows the total program time, press CANCEL twice to remove the last selection entered.)
- ❑ If you want to change the entire program, press ■/CLEAR on the Unit while the CD is off, and then you can start over.
- ❑ To check the order of the tracks in your program in STOP mode, press ⏮ or ⏭ on the Remote to display the order of the tracks. Each time you press ⏭ the next selection in your program is displayed. (Press ⏮ for the previous selections.)

Repeat a selection or the whole CD

Repeating a Selection or the Entire Disc

You can have either the program or the individual selection currently playing repeat as many times as you like by pressing REPEAT.
Each time you press REPEAT, it cycles from function-off, which turns "REPEAT" out on the display, to "REPEAT" which will repeat all tracks in order or according to the program you have set, and then to "REPEAT 1" which will repeat the currently playing track.

To cancel repeat mode, press REPEAT until the "REPEAT" or "REPEAT 1" goes off on the display.

Listening to a Tape

Listen to a tape: How to use your tape deck

The tape deck allows you to play, record and dub audio tapes.

- ❑ Most of tapes are now recorded with the Dolby NR system, so first check which type of the Dolby NR system is used on the tape. Only the Dolby B NR is incorporated into the CA-S20BK.
- ❑ With Automatic Tape Type Detection, you can listen to type I, II, or IV tapes without changing any settings.
- ❑ To record or dub, see Recording on page 13.

COMPU PLAY

One Touch Play

By pressing either ▷ or ◁ on either deck A or B (► or ◄ on the Remote), the power will come on, and if a tape is in the deck, it will start to play. If no tape is loaded, the Unit will come on and wait for further instructions.

Playback Procedure

Regular Play

When the power is already on, you can use this basic procedure:

1. Press EJECT of the deck you want to use.
2. When the cassette carrier opens, put the cassette in, with the exposed part of the tape down toward the base of the CA-S20BK.
   - ❑ If the cassette carrier does not open, turn the Unit off, then back on again and press EJECT.
3. Close the carrier gently.
4. Press ▷ to play the front side, or ◁ to play the reverse side. The arrow indicator on the pressed button starts blinking and tape play starts.

To stop playing, press ■.

To remove the tape, press EJECT.

Fast Left and Fast Right

- ❑ While the tape is stopped, press ◄◄ and the tape will wind rapidly onto the left side of the cassette without playing.
- ❑ While the tape is stopped, press ►► and the tape will wind rapidly onto the right side of the cassette without playing.

Finding the place you want: Music Scan

Music Scan

To find the beginning of a music track during play, use the Music Scan function. Music Scan searches for blank portions that usually separate tracks, then plays the next song.

- ❑ If you are recording on deck B or put deck B in recording pause mode, Music Scan will not work on deck A.

Scan Back

To find the beginning of the current song

Press ◄◄ or ►► during play.

- ❑ Make sure that you press ◄◄ or ►► in the opposite direction as tape play. Searching stops automatically at the beginning of the current song, and the current song starts automatically.

Scan Forward

To find the beginning of the next song

Press ◄◄ or ►► during play.

- ❑ Make sure that you press ◄◄ or ►► in the same direction to tape play. Searching stops automatically at the beginning of the next song, and the next song starts automatically.

☞ The Music Scan works by detecting a 4-second long blank at the beginning of each selection. So it won't work well if your tape has:

- No blank at the beginning of a track.
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long very soft passages or pauses in a selection. The scan will detect these instead of the 4-second long blanks. If this happens, just go ahead and scan again until you reach the selection you want.

More Useful Things to Know:

•Reverse Mode

•Continuous Play

•Dolby

Useful Other Features Using the Tape Deck

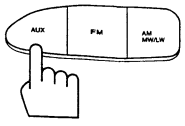
- ❑ Use **Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side. Press REVERSE MODE to change from Reverse Mode on (the indicator is lit) to Reverse Mode off, or from off, to on.
- ❑ **Continuous Play:** When a tape finishes playing, the Unit always checks to see if a tape is in the other deck. If one is there, it automatically starts playing it while rewinding the first tape. This Continuous Play happens regardless of which deck starts first.
  - With the Reverse Mode on, the other tape will start playing when both sides of the first tape have been played. As long as the REVERSE MODE indicator is lit, the tapes will continue to play in the above sequence.
  - With the Reverse Mode off, the tape will play to the end of the current side, switch to the other deck and start playing a tape there while rewinding the first tape. Then when one side of the tape in the other deck is over, the first deck starts playing the same side again. The tapes will continue to play in the above sequence.
- ❑ Press DOLBY B NR to switch **Dolby Noise Reduction** on (the indicator lights up) or off (the indicator goes off). If a tape is recorded with Dolby B NR, playing it back with the Dolby NR on will reduce tape noise and improve the clarity of the sound.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Listening to a VCR

Advantages in Connecting a VCR

By playing the sound from a VCR through the CA-S20BK, you can often dramatically improve the quality, and gain control over how the music or program sounds. Once the connected equipment is playing through the CA-S20BK, you can apply the sound effects, make recordings, or listen with the headphones.



1. Set the Unit's volume to MIN.
2. Press AUX on either the Remote or the Unit.
   "AUX" lights up on the display.
3. Start playing the connected equipment.
   The sound from the connected source is now played through the CA-S20BK.
4. Adjust the volume level.

To cancel the AUX setting

Change the source by starting any one of the CA-S20BK's built in sound sources, such as the radio or CD player.

Recording

What can you record?
•Tapes
•Radio
•CDs
•Connected source

Recording onto cassette tape from any of the sound sources is easy and the CA-S20BK does most of the work. Just have a tape in deck B, have the source ready, make one or two settings, and you're ready to record.

For each source the procedure is a little different and now we'll explain just what to do for each one. If you forget, just go back to the section which has the specific procedures you need. But first, here are a few things to make your recordings better.

Things to Know before You Start Recording:

Reduce hiss—Dolby NR

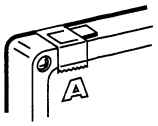
❑ Press DOLBY B NR — the indicator lights up — to reduce tape hiss, **except** when dubbing tapes since Dolby NR is inactive in dubbing mode regardless of the setting of DOLBY B NR. The dubbed tape automatically contains the same processing as the source tape.

Recording level

❑ The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by the VOLUME control on the CA-S20BK. Thus, you can adjust the sound you are actually listening to without changing the recording.

Erasure protection

❑ Two small tabs on the back, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first. However, when a Type II tape is used, only cover part of the hole as shown, since the other part of the hole is used to detect the tape type.



Recording sound mode

❑ When recording, you can select the sound effects with the preset sound effect buttons to condition the music as it is recorded. But when recording using CD REC START or REW/CD REC, once recording has started, these settings cannot be changed. When recording from tape deck A to deck B, the sound effects cannot be used, because the signal doesn't go through the amplifier first. This method gives you the highest quality dubbed tapes.

Usable tape type

❑ Type I and type II tapes can be used for recording. While type IV tapes can be played, type IV tapes cannot be used for recording on the CA-S20BK.

CAUTION: If recordings you make have excessive noise or static, the Unit may be too close to a TV which was on during the recording. Either turn off the TV or increase the distance between the TV and the CA-S20BK.

Standard recording: Any source to tape

Standard Recording

This is the basic method for recording any source. The CA-S20BK also has special ways for recording CD to tape, and tape to tape, which save you time and effort, as well as give you some special effects.
However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method we describe here; just substitute the source you want, such as a tape in deck A, or CD, or radio in this procedure. You can also record from the microphone or an auxiliary source with this procedure.

Source to tape: Step by step

To Record Any Sound Source to Tape

Follow these steps to record from any sound source onto a tape in deck B.

1. Insert a blank or erasable tape into deck B.
2. Press REC PAUSE.
   The REC PAUSE indicator lights up.
3 Press REVERSE MODE if you want to record on both sides of the tape.
   The REVERSE MODE indicator lights up.
4. Prepare the source, for example, tuning in a radio station, loading a CD, turning on a connected VCR.
5. Press either ▷ to record on side A, or ◁ to record on side B of the tape, on deck B.

English

CD to tape recording: Introduction

CD to Tape Recording

There are three ways to record from CD to tape:

- ❑ **Standard Recording** described on the previous page.
- ❑ **CD Direct Recording** — Everything on the CD goes onto the tape in the order it is on the CD, or according to an order you have set in a program.
- ❑ **Auto Edit Recording** — Your CA-S20BK figures out which selections to put on which side of the tape, so a selection isn't cut off before it's finished when the tape runs out.

REW/CD Recording Step by step

REW/CD Recording

1. Insert a blank or erasable cassette in deck B.
   - ❑ If you want to record on both sides of the tape, press REVERSE MODE on the tape deck so that the REVERSE MODE indicator lights up.
2. Load a CD into the tray and press ⏏ to close the tray.
3. Set the sound mode if you want, since the sound mode cannot be changed once recording starts.
4. **To record on the tape from its beginning,** press REW/CD REC on the CD player.
   The Unit will automatically rewind the tape to the beginning of side A, create a 10 second blank, turn on the CD and start recording.
   To record on the tape from any portion of tape rather than its beginning, press CD REC START on the CD player.
   Without rewinding the tape and creating a 10 second blank, the Unit turns on the CD and starts recording.
   - ❑ The CD REC START button is convenient for recording from many CDs.

   At the end of the tape, the CA-S20BK automatically goes back to the beginning of the last selection and re-records it, this time gently fading out at the end. If you selected the Reverse Mode, side B starts with the last selection on side A. (A 10 second blank is also created on the beginning of side B.)
   When the tape is finished, the Unit shuts off the CD and the tape deck.

To stop any time during the recording process
Press ■ on deck B.
In case of any operation during CD Recording, please use buttons on the Unit. (Don't press ones on the Remote Control.)

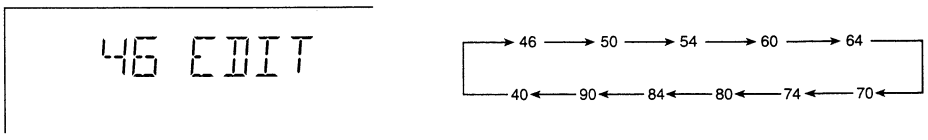
Auto Edit Recording

Auto Edit Recording: Introduction

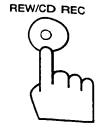
Using Auto Edit, you can record the CD tracks to fit the tape, so a selection isn't cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape.
Auto Edit programs the CD tracks in the numerical order. To prevent the end of the last track on side A from being cut off, the last track on side A is selected to fit on the remaining tape length.

Auto Edit Recording: Step by step

1. Insert a blank or erasable cassette in deck B.
   - ❑ If you want to record on both sides of the tape, press REVERSE MODE on the tape deck so that the REVERSE MODE indicator lights up.
2. Load a CD into the tray and press ⏏ to close the tray.
3. Set the sound mode if you want, since the sound mode cannot be changed once recording starts.
4. Press AUTO EDIT on the CD player.
   "EDIT" appears on the display and then the minimum standard tape length to use for this CD appears.
   - ❑ You can select a different length of tape, depending on the actual size of the tape you are using, from ten possibilities programmed into the CA-S20BK: 40, 46, 50, 54, 60, 64, 70, 74 , 80 , 84, 90. Cycle through these choices using EDIT TIME ⏮ or ⏭ (⏮ or ⏭ on the Remote) until you find the length closest to your tape's actual length.
     - If you pick a tape length shorter than the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.



5. Press SIDE A/B.
   The display shows which tracks will go on side A and which on side B. Each time you press SIDE A/B, the display switches between A and B.
6. Press REW/CD REC on the CD player.
   The Unit will automatically rewind the tape to the beginning of side A, create a 10 second blank, turn on the CD and start recording. (A 10 second blank is also created on the beginning of side B.)



To stop any time during the recording process
Press ■ on deck B.

Tape to tape dubbing: Introduction

Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing.
You can dub at regular speed for the best possible quality, or with a slight loss in sound quality you can dub at high speed. With high speed it takes only about half the time to copy a tape.

- ❑ To dub both sides of a tape, start from side A for both deck A and deck B, and press REVERSE MODE so that the REVERSE MODE indicator lights up.
- ❑ It is preferable that the type of tape (Normal or CrO_2) you record *from* be the same as the type you record *onto*.

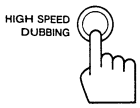
Regular speed dubbing: Step by step

Regular Speed Dubbing

1. Insert a source cassette you want to copy *from* into deck A for playback.
2. Insert a blank or erasable cassette you want to copy *onto* into deck B for recording.
3. Press REC PAUSE on deck B.
4. Press ▷ (or ◁) on deck B.
   Recording starts.
   - ❑ To advance the leader tape, start recording first and wait about 10 seconds before starting the deck A.
5. Press ▷ (or ◁) on deck A.
   Deck A starts playing.

To stop any time during the dubbing process
Press ■ on both deck A and deck B.

High speed dubbing: Step by step



High Speed Dubbing

Although the quality of the dubbed tape is a little less, high speed dubbing is a very convenient way to record from one tape to another.

1. Insert a source cassette you want to copy *from* into deck A, and a blank or erasable cassette to be copied *onto* in deck B.
2. For each deck, select the side (A or B) to start with.
   To change the side, press ◁ or ▷ and then quickly press ■ on the same deck.
   - ❑ The tape will travel in the direction of the lit arrow indicator on the ◁ or ▷ button for each deck.
3. Press HIGH SPEED DUBBING on the tape deck.
   Both decks start, deck A playing and deck B recording.

To stop any time during the dubbing process
Press ■ on deck B.

To record selections from several different tapes during high speed dubbing
When you want to take selections from several different tapes and combine them on one tape during high speed dubbing, follow these steps:

1. Press ■ on deck A.
   - ❑ This causes deck A to stop, so you can change tapes, and deck B makes a 4 second blank and pauses.
     - If you don't want to make a 4 second blank, press REC PAUSE before pressing ■ on deck A.
2. Change the tape in deck A.
3. Press HIGH SPEED DUBBING to start deck A playing and deck B recording again.
   - ❑ The sound you hear is strange because it is much faster than usual, and you may not want to listen to it. Turn it down with the VOLUME control, or press FADE MUTING on the Remote.
   - ❑ You can also listen to another source such as the radio or the CD player, just as if you weren't dubbing.

☞ Dolby NR is inactive in dubbing mode regardless of the setting of DOLBY B NR. The dubbed tape automatically contains the same processing as the source tape.
☞ You cannot dub using the sound modes such as STADIUM, DANCE CLUB, HALL, etc.

How to Set the Clock and Use the Timers

English

Two Timers:
•DAILY
•SLEEP

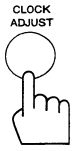
The timers let you control recording and playing functions automatically. With the CA-S20BK they are particularly easy to set and use. Two types of timers are available:

- ❑ **DAILY Timer**—Wake up to music from any source.
- ❑ **SLEEP Timer**—Fall asleep and have your CA-S20BK turn off automatically after a certain length of time.

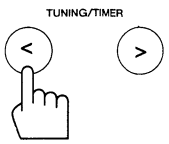
Clock Setting

IMPORTANT!
Set your clock!

The timers depend on the clock: If the clock is right, the timers will work like you expect, but if the time is incorrect on the clock then the timers will also be incorrect.

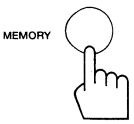


Notice: The clock must be set, or the timers cannot be set!



So, let's set the clock first.

1. Press CLOCK ADJUST button.
2. Set the hour by pressing the TUNING/TIMER < or > button. Press the > button increase the hour, and pressing the < button decreases it.
3. Press the MEMORY button.
4. Set the minutes by pressing TUNING/TIMER < or > button. Press the > button increase the minute, and pressing the < button decreases it.
5. Press the MEMORY button again and the clock is set and starts from zero second.



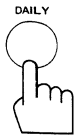
☞ If there is a power failure, the clock loses its setting, the display shows "0:00" ("12:00" (for Canada)), and it must be reset.

Setting the DAILY Timer

Wake up to music with the DAILY Timer

With this timer you can wake up to music from a CD, tape or your favourite radio program.

- ❑ You can set the DAILY Timer whether the Unit is on or off.



Follow this procedure to set the DAILY Timer

1. Press DAILY so that "DAILY TIMER" blinks on the display.
2. Set the time you want the Unit to turn on, then press MEMORY.
   - ❑ Use the TUNING/TIMER < or > button just like setting the clock.
3. Select the sound source with the TUNING/TIMER < or > button.
   - ❑ Each time you press this button, the display shows one of the four possible sources: CD, TAPE, FM or AM. Leave the one you want lit.
     - If you select AM or FM as the source, the last played station is the one which comes on at the set time.
4. Press DAILY or MEMORY again, or wait eight seconds. "DAILY TIMER" lights up on the display. The Unit will memorize the setting.
   When the set time comes, the CA-S20BK turns on ("DAILY" appears on the display), plays the source you have selected for 60 minutes, and then the Unit turns off.
   - ❑ If you press any button while the DAILY Timer is being activated, the Unit will not turn off automatically after 60 minutes.

Before turning off the Unit

- ❑ If the source is tape:
  - Check that the tape transport direction is correct. This is important especially when Reverse Mode is off.
  - Deck A has priority, so if tapes are in both deck, the tape in deck A plays first.
  - Set Reverse Mode on if you want play both sides of the tape.
- ❑ Select the sound mode if you want to listen using a sound mode (STADIUM, DANCE CLUB, HALL, etc.).
- ❑ Set the volume to an appropriate level.

To change the DAILY Timer setting

Press DAILY twice ("DAILY" reappears) and make any changes you want.

To cancel the DAILY Timer setting

Press DAILY button again so that "DAILY TIMER" goes off on the display.

Sleep Timer: turns the Unit off automatically after a set time

Setting the SLEEP Timer

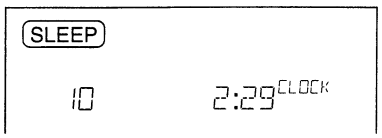
Use the SLEEP timer to turn the Unit off after a certain number of minutes when it is playing. Using this timer, you can fall asleep to music.

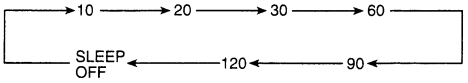
- ❑ You can only set the SLEEP Timer when the CA-S20BK is on and a source is playing.

Follow this procedure to set the SLEEP Timer

With the CA-S20BK on and a source playing, press SLEEP on the Remote Control. "SLEEP" starts blinking on the display.

- ❑ Each time you press SLEEP while "SLEEP" is blinking, it changes the number of minutes shown on the display in this sequence:





When the number of minutes you want shows on the display, just wait 8 seconds until "SLEEP" stops blinking, but remains lit.

The Unit will now turn off after the number of minutes you set.

To change the SLEEP Timer setting

Press SLEEP until the number of minutes you want appears on the display.

To cancel the SLEEP Timer setting

Press SLEEP until "SLEEP" goes off on the display.

Turning off the Unit also cancels the SLEEP Timer.

Timer Priority

The SLEEP Timer has priority over the DAILY Timer. This is important because if you set the SLEEP Timer to start before and then end after the DAILY Timer would start, the DAILY Timer doesn't come on. So if you want your alarm to go off as scheduled, be sure the SLEEP Timer shuts off before the DAILY Timer is to turn on the Unit.

How to Use the Remote Control

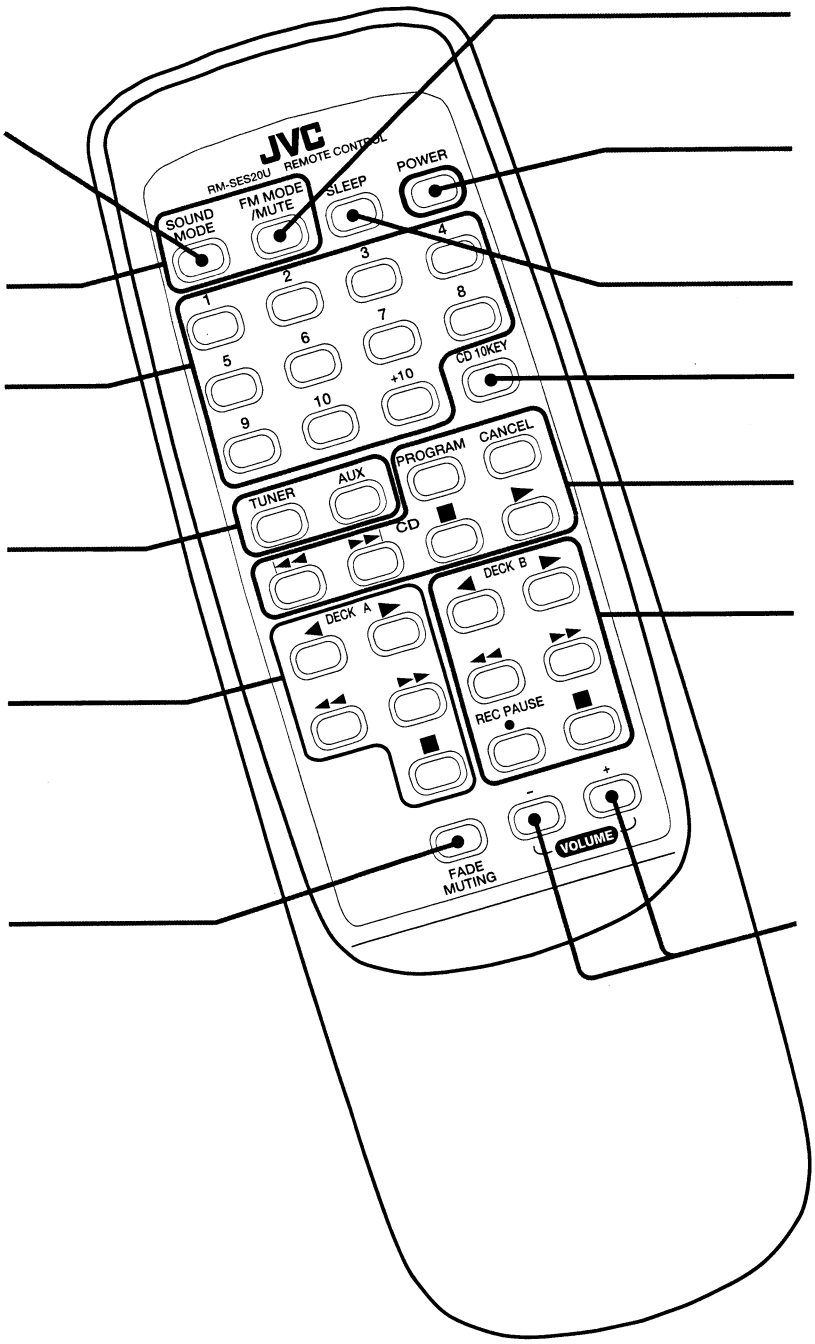
The Remote Control makes it easy to control many of the functions of the CA-S20BK from a distance of up to 6 m away. You need to point the remote sensor at the CA-S20BK front panel.

- ❑ Most of the buttons on the Remote Control do just what the ones on the CA-S20BK do.
- ❑ A few functions are available only by using the Remote Control, and those are described below.
- ❑ The buttons whose names or marks are printed in blue can be used for the One Touch Operation.

Using the 10 Key Pad

The 10 key pad is used to specify a CD track or the number you have assigned to a preset radio station. To enter a number using the 10 key pad follow these steps:

- ❑ Before using the 10 key pad, make sure which the 10 key pad functions for, the CD player or tuner. This is depends on which button on the Remote you have pressed before 10 key pad. For example, if you press AM or FM before 10 key pad, it can select a preset station. If you press ► for the CD player, it can select a CD track.
- ❑ For numbers between 1 and 10, just press the button with the number you want.
- ❑ For numbers from 11 to 20, first press the +10 key, then the one's digit of the number you want — to get 15, first press +10, then 5. For 20 press +10 and 10 .
- ❑ For numbers from 21 to 30, press the +10 key twice; then press the one's digit — to get 25, press +10 +10 and 5 . For 30, press +10 +10 and 10
- ❑ For numbers from 31 to 40, follow the same procedure, only press the +10 key three times, then the one's digit — to get 32, press +10 +10 +10 and 2.



SOUND MODE
Select the sound mode
see page 7

Set the sound effects

10 key pad
See description above

Select tuner or auxiliary equipment

Control deck A

Press to automatically reduce volume when changing from one source to another, or turning the CA-S20BK on from a distance

FM MODE/MUTE
Select radio reception mode
see page 9

Turns power On or Standby

SLEEP
see page 17

Activate the keypad for entering track numbers, programming the CD, etc.

Control CD Player

Control deck B

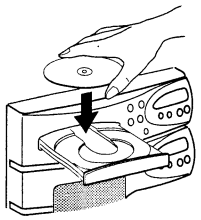
Volume up and down

Care and Maintenance—General Notes

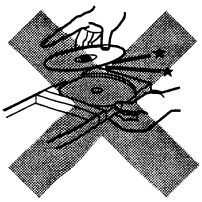
Compact Discs

Handle your compact discs, cassette tapes, and tape deck carefully, and they will last a long time.

- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.



- Place the CD into the open tray with the label facing up.



- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.

- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

CAUTION: Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean a CD.

On Moisture Condensation

Moisture may condense on the lens inside the unit in the following cases:

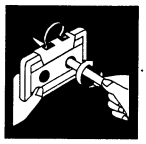
- After starting the heating in the room.
- In a damp room.
- If the unit is brought directly from a cold to a warm place.

Should this occur, the unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.

- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the tape deck tape carriers and the CD tray closed when not in use.

Cassette Tapes



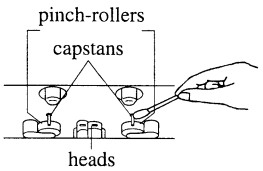
- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.

- Do not touch the tape surface.

- Do not store the tape:
  - In dusty places
  - In direct sunlight or heat
  - In moist areas
  - On a TV or speaker
  - Near a magnet

Tape Deck

- If the heads, capstans, and pinch-rollers of the tape deck become dirty, the following will occur:
  - Impaired sound quality
  - Discontinuous sound
  - Fading
  - Incomplete erasure
  - Difficulty recording
- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, it will produce noise or loose high frequencies.
- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

Troubleshooting

- If you are having a problem with your CA-S20BK, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	ACTION
No sound is heard.	Connections are incorrect, or loose.	Check all conections and make corrections. (See pages 3 and 4.)
Impossible to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Hard to listen to broadcasts because of noise.	The antenna is disconnected.	Re-connect the antenna securely.
	The loop antenna is too close to the system.	Change the position and direction of the loop antenna.
	The feeder/wire antenna is not properly extended and positioned.	Extend feeder/wire antenna at the best reception position.
The CD sound is discontinuous.	The CD is scratched or dirty.	Clean or replace the CD.
Unable to operate the Remote.	The path between the Remote and the sensor on the Unit is blocked.	Remove the obstruction.
	The batteries are discharged.	Replace the batteries.
The CD tray cannot be operated.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built in microprocessor may malfunction due to external electrical interference.	Unplug the system then plug it back in.
The cassette carrier cannot be opened.	The system was turned off because the timer was operated while the tape was running.	Turn On the system.

Specifications

Amplifier

Output Power (IEC 268-3/DIN)
25 watts per channel, min. RMS, both channels driven, into 6 ohms at 1 kHz with no more than 0.9% total harmonic distortion.

25 watts per channel, min. RMS, both channels driven into 6 ohms, from 60 Hz to 20 kHz, with no more than 0.9% total harmonic distortion (Canada only).

Input Sensitivity/Impedance (1 kHz)	
AUX	300 mV/50 kohms
Speaker terminals	
Main speakers	6 ohms

Tape deck

Frequency response	
CrO_2:	30 ~ 16,000 Hz
Normal:	30 ~ 15,000 Hz
Wow and Flutter	0.09% (WRMS) (0.2% DIN)

Tuner

FM Tuner

Tuning Range	87.5 ~ 108.0 MHz
Usable Sensitivity	0.95 µV/75 ohms (10.8 dBf)
Signal-to-Noise Ratio (IHF-A weighted)	MONO (at 85 dBf) 80 dB
	STEREO (at 85 dBf) 73 dB

AM Tuner

MW- Tuning Range	522 ~ 1,629 kHz
	530 ~ 1,710 kHz (Canada only)
LW- Tuning Range (except for Canada)	144 ~ 353 kHz
	144 ~ 290 kHz (Italy only)

Compact Disc Player

Dynamic Range (1 kHz)	90 dB
Signal-to-Noise Ratio	95 dB
Wow and Flutter	Unmeasurable

General

Power Requirements	230 V AC ~ 50 Hz
	120 V AC ~ 60 Hz (for Canada)
Power Consumption	110 Watts
	95 Watts, 120 V A (for Canada)
Dimensions (Approx.)	245 x 265 x 344.5 mm (W/H/D)
	($9^3/_4$ x $10^1/_2$ x $13^9/_{16}$ in.)
Weight (Approx.)	7.3 kg (16.1 lbs)

Supplied Accessories

FM wire antenna (only for Germany) (1)
FM feeder antenna (except for Germany) (1)
AM loop antenna (1)
Remote control (RM-SES20U) (1)
Batteries R6P(SUM-3)/AA(15D, 15F) (2)
Antenna adaptor (except for Germany) (1)

Design and specifications subject to change without notice.